

In re Application of NATHAN et al.
Application No. 09/541,461

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Amendments to the Claims

1 – 21. (Canceled)

22. (Currently Amended) A system for securing data communication ~~aeress~~ between an internal computer network and an external computer network, comprising:

a client located in ~~an~~ the internal computer network;

a server located in the external computer network and in communication with the client; and

an application-level gateway proxy device ~~located in the internal computer network and~~ comprising:

components for (1) performing, at a packet level, a network address translation upon a stream of packets originating from the client and (2) filtering, at a stream level, the stream of packets and transmitting the packets to the server, wherein the filtering is transparent to the client; and

a communications socket internal to the application-level gateway proxy device and communicatively connected to the components for (1) performing the network address translation and (2) filtering.

23. (Previously Presented) The system of claim 22, wherein the components of the proxy device comprise:

a first component for filtering said stream of packets, and also for filtering, at a stream level and transparently to the client, a second stream of packets originating from the server; and

a second component for performing said network address translation, and also for performing, at a packet level, a reverse network address translation with respect to the packets in the second stream and transmitting the packets in the second stream to the client.

24. (Currently Amended) An application-level gateway proxy device

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located in an internal network, comprising:

a component for performing, at a packet level, a network address translation with respect to a stream of packets originating from a client in the an internal network, wherein the client is communicating the stream of packets to a server located in an external network;

a component for filtering, at a stream level, the stream of packets, wherein the filtering is transparent to the client;

a communications socket internal to the application-level gateway proxy device and communicatively connected to:

the component for performing the network address translation; and

the component for filtering; and

a component for transmitting the packets to the server after the packets are filtered.

25. (Previously Presented) The proxy device of claim 24, further comprising:

a component for filtering, at a stream level and transparently to the client, a second stream of packets originating from the server;

a component for performing, at a packet level, a reverse network address translation upon the packets in the second stream; and

a component for transmitting the packets in the second stream to the client.

26. (Canceled)

27. (New) The method of claim 24, wherein filtering the stream of packets comprises transforming the stream.

28. (New) The method of claim 24, wherein filtering the stream of packets comprises compressing the stream.

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29. (New) The method of claim 24, wherein filtering comprises content monitoring, content restriction, stream transformation, traffic redirection and combinations thereof.

30. (New) A computer-implemented method for communication between a first network and a second network comprising:

- intercepting, at a first external socket of a proxy network address translation device, a stream of packets;
- performing, at a first internal component of the proxy network address translation device, a network address translation upon the stream of packets, the network address translation occurring at a packet level;
- transmitting, from the first internal component of the proxy network address translation device to a second internal component of the proxy network address translation device, the translated stream of packets;
- filtering, at the second internal component of the proxy network address translation device, the translated stream of packets, the filtering occurring at a stream level; and
- transmitting, from a second external socket of the proxy network address translation device, the translated and filtered stream of packets.

31. (New) The method of claim 30, wherein transmitting from the first internal component of the proxy network address translation device to the second internal component of the proxy network address translation device comprises transmitting the translated stream of packets through an internal socket of the proxy network address translation device.